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10/758,538	01/16/2004	Gordan G. Greenlee	END920030141US1	5583

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EXAMINER

MIRZA, ADNAN M

ART UNIT

PAPER NUMBER

2145

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/758,538

**Applicant(s)**

GREENLEE ET AL.

**Examiner**

ADNAN M. MIRZA

**Art Unit**

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-40 are rejected under 35 U.S.C. 102(e) as being unpatentable by Watt (U.S. 7,213,065).

1. As per claims 1,18,24 Watt disclosed a method for load balancing servers, comprising the steps of: allocating a plurality of servers among a plurality of virtual clusters; monitoring the plurality of virtual clusters for workload capacity (col. 4, lines 36-56); and reassigning at least one server from one of the plurality of virtual clusters to another of the plurality of virtual clusters based on workload capacity in order to reallocate system resources (col. 2, lines 34-47).
2. As per claims 2,19,25 Watt disclosed further comprising the steps of: monitoring performance of the plurality of servers; and sending a report in response to workload at one of the plurality of servers exceeding a pre-determined threshold so that routing of further requests to the one of the plurality of servers is altered (col. 15, table. 2).

3. As per claims 3,21 Watt disclosed further comprising the step of removing the one of the plurality of servers from an associated virtual cluster and adding the one of the plurality of servers back into the associated virtual cluster in response to workload falling below the pre-determined threshold (col. 15, lines 15-28).
4. As per claims 4,27 claims Watt disclosed wherein the sending a report sends a report to a network dispatcher and the network dispatcher performs the routing (col. 7, lines 37-47).
5. As per claims 5,28 claims Watt disclosed further comprising the steps of: determining that one of the plurality of servers is overburdened based on statistics; and reducing workload to the one of the plurality of servers if the statistics are above a threshold (col. 15, lines 15-28).
6. As per claims 6,29 Watt disclosed wherein the reducing step includes at least one of removing the one of a plurality of servers from one of the plurality of virtual clusters and limiting further requests from being routed to the one of a plurality of servers (col. 4, lines 36-56).
7. As per claims 7,30 wherein the reducing step includes reassigning the one of a plurality of servers to another one of the plurality of virtual clusters (col. 2, lines 34-47).

8. As per claims 8,31 Watt disclosed wherein at least one of the plurality of servers is assigned to more than one of the plurality of virtual clusters (col. 16, lines 28-35).

9. As per claims 9,22,32 Watt disclosed wherein the predetermined criteria includes at least one of requester identity, requested application, time of day, day of week, and performance statistics (col. 16, lines 59-67).

10. As per claims 10,33 Watt disclosed wherein the requester identity is an Internet address (col. 3, lines 1-5).

11. As per claims 11,34 Watt disclosed wherein the performance statistics include at least one of central processing unit (CPU) performance statistics, memory statistics, connection counts, throughput statistics, and response time statistics (col. 18, lines 34-46).

12. As per claims 12,35 Watt disclosed wherein the routing step includes selecting one of the plurality of virtual clusters for routing based on at least one of a requester's identity and a requested application (col. 16, lines 59-67).

13. As per claims 13,23,36 Watt disclosed further including selecting one server from the one of the plurality of virtual clusters for routing based on statistics (col. 16, lines 28-35).

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14. As per claims 14,37 Watt disclosed wherein the selecting is based on performance statistics (col. 2, lines 32-47).

15. As per claims 15,38 Watt disclosed wherein at least one of the plurality of servers is at least one of a lightweight directory access protocol (LDAP) server and a web application server (col. 2, lines 58-67).

16. As per claims 16,39 Watt disclosed wherein the routing uses rules based routing (col. 3, lines 45-50).

17. As per claims 17,20,26,40 Watt disclosed further comprising the steps of reassigning one of the plurality of servers from one of the plurality of virtual clusters to another one of the plurality of virtual clusters, wherein the one of the plurality of virtual clusters has a workload below a threshold and the another one of the plurality of virtual clusters has a workload above the pre-determined threshold (col. 15, lines 15-28).

***Response to Arguments***

18. Applicant's arguments filed 02/14/2008 have been fully considered but they are not persuasive. Response to applicant's argument is as follows.

A. Applicant argued that prior art did not disclose, "The feature of routing a request to virtual cluster of the plurality of virtual clusters based on predetermined criteria in order to allocate system resources".

As to applicant's argument Watt disclosed, "The load manager to allocate and provision servers according to pre-determined criteria in response to load measurement signals recieved from the servers (col. 2, lines 55-58).

B. Applicant argued that prior art did not disclose, "reassign at least one server from one of the plurality of virtual clusters to another of the plurality of virtual clusters based on workload capacity of the at least one server in order to reallocate system resources".

As to applicant's argument Watt disclosed, "Yet another advantage of the invention is that its load monitoring and automated server allocation and provisional allow features allow an entity to provide customers with guaranteed service level agreements (SLAa) that can be reliably enforced without adding additional hardware to the data center or adding additional staff to its operation (col. 3, lines 27-33)".

C. Applicant argued that prior art did not disclose, “a report in response to workload at one of the plurality of servers exceeding a pre-determined threshold so that routing of further requests the one of the plurality of servers is altered”.

As to applicant’s argument Watt disclosed, “DSAP system 102 utilizes the concept of the virtual cluster is a collection of servers 308 (or server pools 212) and their respective instances that are grouped together to provide one or more service application. Load manager controls the number of servers actively powered within a virtual cluster and controls the assignment of instances to those servers in order to meet the load requirement for each application (col. 15, lines 16-24).”



***Conclusion***

**19. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

21. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).

/A. M. M./

Examiner, Art Unit 2145

/Jason D Cardone/  
Supervisory Patent Examiner, Art Unit 2145